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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,651	02/22/2000	Klaus Doelle	VOI0148.US	1552

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EXAMINER	
SMITH, JEFFREY A	

ART UNIT	PAPER NUMBER
3625	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/510,651	DOELLE ET AL.	
	Examiner	Art Unit	
	Jeffrey A. Smith	3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,7 and 9-19* is/are rejected.

7)☒ Claim(s) *3-6 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 February 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Reopening of Prosecution After Appeal Brief or Reply Brief

In view of the Appeal Brief filed on September 20, 2004, PROSECUTION IS HEREBY REOPENED. New grounds for rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31. A new notice of appeal fee and appeal brief fee will not be required for applicant to appeal from the new Office action. Any appeal brief filed on or after September 13, 2004 must comply with 37 CFR 41.37.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 7, and 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reid et al. ("Reid": U.S. Patent No. 6,298,308 B1) in view of Galasso, Jay: "Business goals, end-users must drive information systems selection", Pulp & Paper, San Francisco, Nov. 1998, Vol. 72, Iss. 11; pg. 50 ("Galasso").

Claims 1 and 19

Reid discloses a monitoring system comprising an apparatus (14); a sensor (18) coupled with said apparatus and configured for sensing a physical parameter associated with said apparatus (col. 5, lines 14-15), said sensor including a wireless transmitter for transmitting an air-borne wireless output signal corresponding to said sensed physical parameter (col. 5, lines 32-39); a remote unit (16) including a receiver for receiving said wireless output signal, said receiver including a first data link for transmitting a remote output signal corresponding to said wireless output signal (col. 6, lines 30-40); and a base

unit (34) including a second data link at least intermittently coupled with said first data link for receiving said remote output signal (col. 7, lines 23-34), said base unit including means for analyzing said remote output signal (col. 7, lines 34-38) and means for transmitting a state notification to said remote unit via said second data link and said first data link corresponding to a state of said sensed physical parameter (col. 10, lines 59-62).

The recitations "means for:...transmitting a price quote to said remote unit via said second data link and said first data link; and means for transmitting a shipment notification to said remote unit via said second data link and said first data link indicating a part has been shipped" have been considered. It is noted such recitations are presented in alternative form as governed by the recitation "means for at least one of". As the Examiner has indicated, Reid otherwise satisfies the limitation "mean for at least one of" by providing either of said "means for analyzing said remote output signal" and said "means for means for transmitting a state notification to said remote unit via said second data link and said first data link corresponding to a state of said sensed physical parameter".

Claim 2

Reid discloses that said apparatus includes a wear part, and wherein said wireless output signal corresponds to a wear state of said wear part (col. 5, lines 14-15).

Claim 7

Reid discloses that said remote unit includes means for analyzing said wireless output signal (col. 7, lines 1-13); and means for transmitting a state notification to said base unit via said second data link and said first data link corresponding to a state of said sensed physical parameter (col. 12, line 63-col. 13, line 12).

Claim 9

Reid discloses that said first data link and said second data link each comprise a modem (col. 6, lines 30-40; and col. 7, lines 23-34).

Claim 10

Reid discloses a method of monitoring a system comprising the steps of providing an apparatus; coupling a sensor with said apparatus; sensing a physical parameter associated with said apparatus; transmitting an air-borne wireless output signal

using a wireless transmitter, said wireless output signal corresponding to said sensed physical parameter; receiving said wireless output signal at a receiver of a remote unit; transmitting a remote output signal from a first data link of said remote unit to a second data link of a base unit; analyzing said remote output signal; and transmitting a state notification via said second data link and said first data link corresponding to a state of said sensed physical parameter. See "Summary of the Invention".

The recitations "transmitting a price quote to said remote unit via said second data link and said first data link; and transmitting a shipment notification to said remote unit via said second data link and said first data link indicating a part has been shipped" have been considered. It is noted such recitations are presented in alternative form as governed by the recitation "at least one of". As the Examiner has indicated, Reid otherwise satisfies the limitation "at least one of" by providing either of said "analyzing said remote output signal" and said "transmitting a state notification to said remote unit via said second data link and said first data link corresponding to a state of said sensed physical parameter".

Claim 11

Reid discloses that said analyzing step is carried out in said base unit (col. 7, lines 34-35).

Claim 12

Reid discloses that said analyzing step is carried out in said remote unit (col. 7, lines 34-35).

Claim 13

Reid discloses that said step of transmitting said state notification comprises transmitting said state notification to said remote unit from said base unit (col. 10, lines 59-62).

Claim 14

The recitation "wherein said steps of transmitting said price quote and transmitting said shipment notification are each carried out in said base unit" has been considered. It is noted however that such language serves to further limit steps which are recited in the alternative. Reid otherwise meets the limitations of this claim since Reid discloses at least one other of the recited alternative steps (i.e. "analyzing said remote output signal", and "transmitting a state notification

via said second data link and said first data link corresponding to a state of said sensed physical parameter").

Claim 15

Reid discloses that said first data link and said second data link each comprise a modem and said step of transmitting said remote output signal is carried out intermittently (col. 6, lines 30-40; and col. 7, line 23-34; and col. 12, lines 63-66).

Claim 16

Reid discloses that said analyzing step is carried out after said step of transmitting said remote output signal (col. 9, lines 9-15).

Claim 17

Reid discloses a method of monitoring a physical parameter of a wear part in a system, comprising positioning a sensor in association with the wear part; sensing a physical parameter associated with the wear part; transmitting an air-borne wireless output signal using a wireless transmitter, said wireless output signal corresponding to said sensed physical parameter; receiving said wireless output signal at a receiver of a remote unit; transmitting a remote output signal form a

first data link of said remote unit to a second data link of a base unit; analyzing said remote output signal; and transmitting a state notification corresponding to a state of said sensed physical parameter. See "Summary of the Invention".

Reid does not disclose:

Claims 1, 2, 7, 9, and 19: "[a] stock preparation monitoring system" comprising "a stock preparation apparatus".

Claims 10-16: "[a] method of monitoring a stock preparation system" comprising the step of "providing a stock preparation apparatus".

Claims 17: "[a] method of monitoring a physical parameter of a wear part in a system for one of making and processing a fiber suspension".

Claim 18: "wherein said system comprises one of a stock preparation system and a paper-making machine".

Reid, however, does teach that their invention "relates generally to predictive maintenance, and more particularly to a diagnostic network and method which employs local experts to automatically monitor, diagnose and take action in connection with different machines included within a system" (col. 1, lines 14-18). Reid further teaches:

> "The site 12 may be an office building, manufacturing facility, power plant, etc., or basically any location(s) having one or more machines which are to be monitored for predictive maintenance. Such machines may be engines, turbines, compressors, generators, motors, or any other type of machine for which predictive maintenance is useful. The site 12, as exemplified in FIG. 1, includes a plurality of machines 14." (col. 4, lines 53-59)

Now comes Galasso. Galasso reports that "modern [paper] millwide systems can provide end-to-end solutions from stock preparation to shipping" (page 3, second to last paragraph: emphasis added). Galasso discusses an example of maintenance management in a paper mill environment (beginning at page 4):

> "EXAMPLE: MAINTENANCE MANAGEMENT.
> Computerized maintenance management systems (CMMS) are one of the specialized application markets that have grown rapidly. Using this area as an example highlights the kinds of trade-offs involved in purchasing applications today, and can offer some insight into the solution.
>
> Justifying a maintenance system. The business case for updating to a modern maintenance system can be made on several levels. Mills may have had their own 'home grown' solutions, and the cost of adding features or addressing Year 2000 compliance may be too expensive to continue with the existing system. A modern CMMS can offer improved visibility of spare parts inventories, enabling several departments or mills to share expensive equipment.
>
> An even more compelling argument is to increase the reliability of the mill operating equipment through the use of proactive maintenance strategies. This can involve integrating real-time information from control systems for preventive and predictive maintenance. Scheduling can be done based on actual equipment usage and calendar time, as opposed to calendar time alone. Predictive strategies

> involve more advanced techniques using analysis of vibration or other diagnostic measurements to predict when equipment will fail. The result is reductions in unplanned downtime through a more productive, less costly maintenance program." (emphasis added).

It would have been obvious to one of ordinary skill in the art to have applied the monitoring system and methods of Reid in an environment of the type reported by Galasso (i.e. a paper mill environment comprising stock preparation apparatus and paper-making machines) and for the purpose of monitoring such stock preparation apparatus or for monitoring a physical parameter of a wear part in a system for one of making and processing a fiber suspension (such as those well-known in a paper mill environment). The skilled artisan would have recognized both the advantages reported by Galasso in using predictive maintenance in order to have reduced unplanned downtime through a more productive, less costly maintenance program than previously realized (page 5, lines 1-5), as well as the teaching of Reid of the wide range of environments in which their invention may offer service (col. 2, lines 45-53).

Allowable Subject Matter

Claims 3-6, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments, see Appeal Brief, filed September 20, 2004, with respect to the rejection of claims 1-19 under 35 USC 103 has been fully considered and are persuasive. Such rejections have been withdrawn.

Applicant's arguments, see Appeal Brief, filed September 20, 2004, with respect to the rejection of claims 1-19 under the judicially created doctrine of double patenting has been fully considered and are persuasive. Such rejections have been withdrawn.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lamberson (U.S. Patent No. 5,845,230) discloses an apparatus and method for the remote monitoring of a machine condition (see col. 1, lines 13-25).

Liszka (U.S. Patent No. 4,559,828) discloses a system for operational monitoring of a machine (Fig. 1).

UK Patent Application GB 2,306,225 A (Dillmann et al.) discloses detecting a predetermined state of wear in a wearing machine part (page 4, lines 28-34).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Smith whose telephone number is 703-308-3588. The examiner can normally be reached on M-F 6:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn Coggins can be reached on 703-308-1344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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